CHAPTER II
POVERTY IN INDIA - A SURVEY OF EVIDENCE

Poverty being a concrete reality affecting the Indian society for the past several decades, individual researchers and institutions have attempted from time to time to measure its extent, dimensions and have identified those sections of people affected by it. However, studies on poverty are not confined to just one discipline alone, instead, it was one of the themes of research for Sociologists and Anthropologists, apart from Economists. Essentially, the approaches followed to measure poverty differed considerably from discipline to discipline. This may be the reason why all social science disciplines, converge on the truth that the problem of poverty is of a multi-disciplinary nature having many facets. Our perspective being mainly connected with economics, a brief description of the studies carried out in India on the subject of poverty from an economic tinge is provided in the following paragraphs. This will give a general picture of Indian poverty -- studied against its nature, its extent and its dimensions thereby enabling to identify the prevalent hiatus in poverty studies.

There is available a voluminous literature on poverty, with macro and micro level studies -- some with rural, some with urban, and some others with rural and urban accounts simultaneously. To reinforce clarity and avoid
ambiguity, the present review is organised as follows:-

Section I consists of macro level studies (all India and state level) covering both rural and urban segments, and urban segments alone. Section II describes studies covering rural segments alone (all India and state level) and also studies stating the relationship between poverty and other variables. This is followed by Section III, where regional studies (districts and lower levels) comprising studies about both rural and urban sectors collectively and each of these sectors separately. The last section (Section IV) critically examines these studies and projects the gap in Indian poverty studies.

SECTION I

Dandekar and Rath, in their pioneering study, have measured the extent of poverty (rural and urban) in India as a whole (1960-61) and separately for its states (1961-62). The study also focussed on the characteristics of the poor and the way in which the gains of development was distributed among the different sections of the population. The necessary data was gathered from National Sample Survey Consumption Expenditure.

They defined poverty line on the basis of a nutritional norm. According to them, the required annual per capita consumption expenditure was Rs. 170 and Rs.271 for rural and urban areas respectively in 1960-61 to obtain the minimum of 2,250 calorie per capita per day. On the basis of
this estimate, they found (in 1960-61) about 40 per cent and
50 per cent of the rural and urban population respectively
remaining below the poverty line. Further, the considerable
differences observed in the consumer expenditure across the
state to attain a diet with 2,250 calories was partly due to
the differences in prices and partly due to the differences in
consumer preferences across the states. The study indicated
wide differences in the proportion of population below the
poverty line between the rural and urban areas from state to
state. However, the incidence of poverty was found much
greater in the urban areas than in the rural areas. In
addition, the study highlighted the fact that the character of
rural poverty has remained the same as before although the
urban poverty has deepened further.

Ojha's\textsuperscript{2} study looks at both the rural and urban poor
(1960-61) and at the rural only (1967-68). The study was on
the basis of the National Sample Survey (N.S.S.) report of
consumption expenditure (16\textsuperscript{th} round) data. The poverty line
used was 2,250 calories per capita per day. In quantitative
terms it was estimated that it requires, food-grains
consumption of 518 gms and 432 gms per capita per day for the
rural and urban areas respectively.

The study found deficiencies in food grains
consumption in the rural area for expenditure level upto
Rs.15-18 per capita per month. For the urban area, the
deficiencies existed for expenditure level only upto Rs.8-11,
and that even was lower than that of the corresponding groups in the rural area. On the basis of this, the author estimated that in 1960-61 about 52 per cent of the total population were absolutely poor, while in urban area only about 8 per cent of the total population were absolutely poor. The study also revealed that the rural poverty was higher (70 per cent) in 1967-68 than in 1960-61 (52 per cent).

Da Costa\textsuperscript{3} measured the extent of poverty in India for the year 1963-64. He divided the poverty stricken people into the poor, the destitute, and the seriously destitute. His line of destitution comprises of persons with a level of consumer expenditure below Rs.13 in the rural areas and Rs.18 in the urban areas for the year 1963-64. By using the N.S.S data (\textsuperscript{18}\textsuperscript{th} round, 1963-64) he found that there were 81.07 million destitutes in the rural areas and 22.6 million destitutes in the urban areas which together comprised 22.37 per cent of the total population in the country in 1963-64. His line of poverty is Rs.15 and Rs.24 per month in rural and urban areas respectively. He found 34.6 per cent of the total population below this poverty line. Severe destitutes are those whose per capita consumer expenditure is less than Rs.11 and Rs.15 per month in rural and urban areas respectively. The study found 13.2 per cent of the total population as severe destitutes.

Rao and Chandrasekhar\textsuperscript{4} have examined the inter-state and inter-temporal dimensions of the incidence of poverty in
urban area for the period 1963-64 to 1973-74. The data base of the study was N.S.S. Consumption expenditure and the poverty line used was on the basis of the food baskets suggested by Sukhatma, for Indian situation (minimum basket). The food basket was valued by using the urban retail prices. The cost of minimum quantities of non-food items was also added to this to arrive the poverty line.

The authors revealed that the incidence of poverty has remained more or less stagnant. However, at the individual state level, a significant reduction in the incidence of poverty was observed. In addition, it was identified that income growth in the non-primary sectors has facilitated a reduction in the incidence of poverty. Therefore, the authors underlined the need for facilitating the growth of incomes emerging from non-agricultural sectors for the reduction of urban poverty.

In an extensive study, Ramamurthy\(^5\) has estimated the number of the poor and the changes in the standard of living of the people in Tamil Nadu for the period 1960-1970. Their study was on the basis N.S.S. consumption Expenditure data and took it as a proxy for measuring income. The poverty line was the nutritionally adequate diet that would yield approximately 2,400 calories and it was estimated that Rs.15.30 and Rs.19.12 per capita (at 1960-61 prices) was necessary in rural and urban areas respectively to be above the poverty line.
The study revealed that nearly 46.45 per cent of the rural population and 33.14 per cent of the urban population were living below the poverty line in 1960-61. In 1969-70 these percentages were 46 in the rural and 37.3 in the urban areas respectively.

He found that the two important factors that contributed significantly for the rise in the extent of poverty were the rising prices of wage-goods and the stubborn increase in population. The study also identified the poor as small farmers, agricultural labourers and other workers engaged in the unorganised sector. The author suggested provision of wage-goods as a measure to reduce poverty.

Another study by Thimmiah measured the extent of poverty in the whole of Karnataka (for the period 1960-61 to 1973-74) and for its districts (for the year 1974-75). The study made use of secondary data from N.S.S. and the independent state level survey conducted by the Institute for Social and Economic change. Further, he made use of the poverty line of Dandekar and Rath for 1961-62 and the figure was inflated for other years by using consumer price index.

The study noticed a fluctuation in the percentage of people below the poverty line in rural and urban Karnataka. The urban poverty has increased from 45.14 per cent in 1960-61 to 65.89 per cent in 1965-66 and later declined to about 39 per cent in 1974-75. In rural area, it has increased from 37.49 per cent in 1960-61 to 66.41 per cent in 1965-66 and
declined to 30.65 per cent in 1974-75. But the percentage of people in absolute poverty was found lower in rural areas in comparison with the percentage in urban area except during 3 years, 1964-65, 1965-66 and 1973-74. The study found an inverse relationship between the percentage of people below the poverty line and the level of agricultural production.

In Districts, the study indicated a higher proportion of people below the poverty line in the urban area than in the rural area. A look at poverty in social groups showed, (in the state as a whole), the highest proportion of Muslim population below the poverty line and this was found even higher in the urban area. The study concluded that the poor people are concentrated in the urban areas rather than in the rural areas. Caste-wise poverty was high among Muslims, Scheduled castes and Scheduled Tribes and other low caste people. It was also found that the rural poor consists mainly of agricultural labourers, marginal and small farmers, whereas the urban poor consists mainly of non-agricultural labourers and casual workers.

Subramanian's study in Tamil Nadu relates to the period 1961-62 to 1983 and relied on the N.S.S. consumption expenditure data. The poverty line was Rs.15 and Rs.20 per capita monthly expenditure at 1960-61 prices for the rural and the urban areas respectively. He made use of the Head Count ratio, the Proportionate Expenditure Gap and Sen's Index of poverty for measuring the incidence of poverty.
He found the rural poverty closely correlated with agricultural performance (measured in terms of the output of food-grains per head of rural population). In addition, the relative rural urban poverty pattern was seen closely related to the relative rural-urban price levels ratio. Further, the study indicated that the governmental policies for the impoverished sections have not made any appreciable dent in ameliorating the poverty of the state.

A study by Sastry\(^8\) examined the incidence of poverty and its inter-relationship between economic development, inequality and poverty in the three sub-regions of Andhra Pradesh (Coastal Andhra, Rayalaseema and Telengana) and its districts separately for rural and urban areas. The special focus was on the vulnerable Socio-economic groups such as Scheduled Caste, Scheduled Tribe and Agricultural Labourers. For this purpose, the data on household consumer expenditure of N.S.S. (26\(^{th}\) round 1971-72) was made use of.

For quantifying poverty, both positive and normative approaches were followed. Under the positive approach, fulfillment of varying calorie requirements of per capita per day (1,800, 2,000, 2,250) was fixed. Under the normative approach, two variants were worked out, on the optimum diet bundle yielding the specified nutritive factors ignoring the taste dimension and the other which allowed the regional patterns of consumption to operate among various constraints. The inter-relationship between poverty, inequality and
development was examined with the help of Multiple Regression technique.

The results of the study shows maximum incidence of poverty at the regional level in Telengana and minimum in Rayalaseema at all levels uniformly under the calorie criterion. Poverty incidence was found higher among Scheduled Caste, Scheduled Tribe and agricultural labourers. The incidence of poverty was observed maximum among the agricultural labourers. In intra-regional comparison, the incidence of poverty among caste groups, the maximum sufferers were Scheduled castes.

Among the urban Segments, Telengana registered the maximum intensity of poverty and Rayalaseema, the minimum under the calorie criterion. Low incidence of poverty was noticed in the prosperous districts of the state. Among the urban Caste groups, the Scheduled tribes of Coastal Andhra and Scheduled Castes of Telengana bore the maximum incidence of poverty. The study revealed an inverse relationship between development and poverty and a direct relation between development and inequality.

SECTION II

Minhas estimated the extent of rural poverty for the period 1956-57 to 1967-68 on the basis of the distribution of private consumption expenditure available from different
rounds of National Sample Survey. Two poverty lines were considered, (i) A private consumption of Rs.240 (at 60-61 prices) per capita per year and (ii) Rs.200 per capita per year.

On the basis of Rs.240, there was not any significant change in the number of people below poverty line for the period 1956-57 and 1967-68. The number was found to have fallen in good harvest years. On the basis of the poverty line of Rs.200, the number of people below poverty line fell more or less steadily (from 52.4 per cent in 1956-57 to 37.1 per cent in 1967-68).

Out of the estimated 164 million people below the poverty line (in 1960-61), the study identified around 60 millions as rural labour households. The remaining 104 million people belongs to land operating (non-Labour) households. A residual of about 10-15 million belonged to small land owners.

Bardhan studied the changes in the percentage of rural people below a minimum level of living for the period 1960-61 to 1968-69. By using the N.S.S. consumption expenditure data, the poverty line considered was a monthly per capita expenditure of Rs.15 at 1960-61 prices. The results indicated that the percentage of rural people below the minimum level of living has significantly gone up from 38 per cent in 1960-61 to 54 per cent in 1968-69.
About the regional pattern, the study found (in 1967-68) more than half of the rural population below the minimum level of living in Bihar, Gujarat, Kerala, Madhya Pradesh, Maharashtra, Mysore, Orissa, Tamil Nadu, Uttar Pradesh and West Bengal. Between 1960-61 and 1968-69 the study found a significant rise in the percentage of rural people below the minimum level of living in Assam, Bihar, Gujarat, Jammu and Kashmir, Kerala, Madhya Pradesh, Mysore, Punjab (including Haryana) Uttar Pradesh, and West Bengal. This increasing trend was noted in all the states of East India, except in Orissa. In Orissa, the rise in the percentage of poor people was relatively small and the absolute level of this percentage remained one of the highest in the country. Another finding of the study was that even in Punjab-Haryana, (the throbbing heart-land of Green revolution) an increase was there in the percentage of people below the minimum level.

Bhatty's estimate was on the basis of the National Council of Applied Economic Research Survey for the period 1968-69. He used Sen's index of poverty and considered five poverty levels in terms of per capita annual income in 1968-69 (Rs.180, Rs.240, Rs.300, Rs.360 and Rs.420).

The study revealed that the inequality in the distribution of per capita consumption expenditure was uniformly less than the inequality in the distribution of income. Considerable variation in inequality in consumption
expenditure was found in states between one occupation and another. Of the three occupation classes viz, agricultural labourers, cultivators, and non-agricultural workers, agricultural labourers were found to be the most deprived among the occupation classes.

Although poverty among cultivators was found positively associated with income inequality, no such association was found in the case of agricultural labourers. The results indicated that larger farm sizes do not necessarily raise the income generating capacity of the rural economy. This was partly on account of geo-climatic factors and partly on account of the fact that the quantum of employment and wage rates are not affected by the manner in which the land is distributed.

Vaidyanathan\textsuperscript{12} examined the pattern of inequalities in per capita consumption levels by principal occupational, land holding categories and household size. In addition, an attempt was also made to find the inter-state variation in the degree of inequality in consumption. The necessary data were collected from the N.S.S. and the study covers the period 1960-61 to 1967-68.

The poverty line considered was Rs.20 per capita consumption expenditure per month (at 1960-61 prices) and he estimated that the proportion of rural poor have gone up progressively from 59.5 per cent in 1960-61 to 60.4 per cent in 1964-65, and further to 67.8 per cent in 1967-68.
The results also indicated large variations in the incidence of poverty among states. This was on account of the differences in average per capita consumption and its distribution. In addition, the pattern of land ownership was found more important than the pattern of land operation in determining the degree of consumption inequality.

Ahluwalia\(^{13}\) worked out the trends in the incidence of poverty in rural areas for 14 years covering the period 1956-57 to 1973-74 for India as a whole as well as for the individual states. The study also examined the relationship between poverty and agricultural growth. The poverty line was a consumer expenditure level of Rs.15 per person (for 30 days) at 1960-61 rural prices. The analysis was based on two alternative measures of poverty -- the percentage of the rural population below the fixed poverty line and Sen's poverty index.

The estimates for all India showed marked fluctuation from time to time in the extent or incidence of rural poverty. The observed fluctuation in the incidence of poverty according to Ahluwalia reflects the real change in the severity of the poverty problem over time.

A linear time trend fitted did not show any evidence for ascertaining a trend increase or decrease in rural poverty over the period as a whole. From this, he came to the conclusion that there had occurred an increase in the absolute
number of people in poverty because of the growth in the rural population over the period.

The time pattern of the incidence of poverty for individual states also followed the pattern of fluctuation similar to all India. Thus, the study concluded that the incidence of poverty in rural India does not show any sustained trend over the past two decades, but only showed a pattern of fluctuation.

The author observed a clear inverse relationship between rural poverty and agricultural performance. The study came to the conclusion that there had occurred some trickling down of benefits due to increases in agricultural production.

The study by Saith\textsuperscript{14} investigated the relationship between rural poverty, prices and agricultural production in India for the period 1956-57 to 1973-74 on the basis of secondary data. He observed price deviations are more important in explaining the fluctuations in the level of poverty than production deviations. The incidence of poverty displayed strong tendency to increase over time after taking into account the influence of price and production fluctuations. The findings of this study thus contradict the findings of Ahluwalia.

In addition, the study revealed that price rises accentuate poverty rather more powerfully than production improvements alleviate it, while independently of the impact of both fluctuations, the incidence of poverty increases.
steadily over the period. The study also unfolded some of the determinants of rural poverty in India as Percentage deviation of price index from trend level, percentage deviation of production index from trend level, and time trend.

In a recent study, Sundaram and Tendulkar\textsuperscript{15} have examined the inter-regional variations in the incidence of poverty and in the rate of unemployment. They also analysed the link between poverty and unemployment for the self employed and the wage dependent households. The data base of the study was 27\textsuperscript{th} and 32\textsuperscript{nd} rounds of N.S.S. (1972-73 and 1977-78) relating to the all India rural population.

The study unearthed that the proportion of wage dependent households is the major factor explaining the inter-regional variations in the rate of unemployment. In addition, the average value of assets per household and average per capita consumer expenditure were found to be the other dominant variables contributing to the inter-regional variations in the incidence of poverty. As the rural poverty was found affected favourably by an increase in the average levels of household assets and gross cropped area and negatively by an increase in the inequality in the distribution of assets and consumption expenditure, the study concluded that growth in averages (output or income) may have positive or negative effects'.

Similarly the enquiry by Gaiha\textsuperscript{16} attempted to explain the temporal/regional variations in poverty in terms
of variation in agricultural output and prices. He studied the impact of village specific technological and household specific variables on poverty. He related the risk/probability of households being poor to the characteristics of the household. For this purpose he made use of the data on the Additional Rural Income Survey (1968-1970) carried out by National Council of Applied Economic Research relating to the year 1968-69.

The study noticed that the village specific indicators exercised a poverty-reducing effect and the new agricultural technology beneficial to the poor. Among the household specific variables education was found to be associated with a lower risk of poverty, and the dependency burden was positively associated with poverty.

The risk of poverty was seen different for different occupations and the contribution of each variable in explaining the variations in the risk of poverty also varied by occupation. The risk of poverty was more sharply reduced for cultivators than for casual labourers under the impact of new agricultural technology. The availability of credit was inversely related to the risk of poverty for business and craftsman, while this explanatory variable did not have any significant effect on the risk of poverty for cultivators. The risks for casual labour were not influenced by life cycle effects operating through variations in earnings across age groups.
Mundle attempted to unfold the effect of agricultural production and prices on the incidence of rural poverty. The author has made use of three sets of data for this study (the state level agricultural production data, the state Level N.S.S. Consumer expenditure data and the state level index of agricultural and food-grain prices). The period of study was 1963-64 to 1973-74. The study made use of Simple Correlation co-efficient and Poverty Index (Head Count Ratio). The intake of 2,435 calories per capita for each state in each year was taken as the base for measuring poverty. Food grain production was taken as the proxy for agricultural production for analysing the impact of agricultural production on the incidence of poverty in rural India.

The study revealed that there is no strong effect on the incidence of rural poverty by agricultural production and prices. Although, agricultural production was not significantly and positively correlated with rural poverty in a single state, these variables were found to have a significant negative correlation in six of fifteen states. A rise in the food-grain prices adversely affected the wage dependent rural labour households. Thus, the study came to the conclusion that the real income loss of this strata tends to be offset by real income gains of the other major segments of the poor rural cultivating households.
Sanyal's study is largely concerned with the trends in poverty in fifteen major states and India as whole during the period 1954-55 to 1971-72. He linked the poverty line obtained on the basis of nutritional norm with the ownership holding size by using an indirect method. He assumed that household's level of living is determined by the amount of land it owns and it is an increasing function of the amount of land it owns for measuring poverty.

The study revealed at the all India level, a substantial decline in the Sen measure of poverty from 0.6 in 1954-55 to 0.55 in 1961-62 and subsequently it has increased to 0.58 in 1971-72. At the state level, an increasing trend in the incidence of poverty was observed in Bihar, Orissa, Punjab, Uttar Pradesh, and West Bengal. A decreasing trend was observed in Jammu/Kashmir, Rajasthan and Kerala while it is almost static in Assam. In Gujarat, Karnataka and Maharashtra, a substantial increase in the incidence of poverty was observed. Further, it was concluded that the inequality of land ownership is one of the causes of poverty.

Kurien estimated the extent of poverty (and the composition and distribution of expenditure among different size classes) in rural Tamil Nadu for the period 1957-58 through 1969-70. Using the various rounds of N.S.S. data and two widely accepted norms for the identification of the poor (on the basis of nutritionally adequate diet and minimum level of living), the study found in 1957-58 more than 50 per cent
of the rural people below the poverty line. In 1969-70, it was slightly below 50 per cent on the basis of the nutritionally adequate diet. On the basis of the minimum level of living over 74 per cent were below the poverty line in 1957-58. Towards the end of 1960, it rose to nearly 80 per cent and again it declined to 73.98 per cent in 1969-70.

The result indicated a close association of rural poverty with little or no claims on resources. Thus he concluded that growth, even if quantitatively impressive, cannot provide the elementary needs of those who do not have any resources at their command. The author further added that poverty must be seen as the result of certain economic and social processes without reference to which it cannot be properly understood and analysed.

Rajaraman in her study measured the changes in rural poverty and inequality in Punjab on the basis of the N.S.S. consumption expenditure data (16th - 1960-61, 17th - 1961-62 and 25th - 1970-71 rounds). She has constructed a poverty line specially for the region (using Linear Programming Technique). In money terms, the poverty line was a monthly per capita consumption expenditure of Rs.16.36 for 1960-61 and Rs.33.86 for 1970-71.

The results revealed a rise in the percentage of population below the poverty line and it had increased from 18.4 per cent in 1960-61 to 23.28 per cent in 1970-71. The larger increase in poverty was among the agricultural
labourers. In 1960-61 and 1970-71 agricultural labourers formed 17.5 and 23.2 per cent of all rural occupation groups. In 1960-61 they comprised only 22.6 per cent of the households living in poverty, but in 1970-71 their share has increased to 40.5 per cent.

Nayyar\(^{21}\) made an attempt to measure poverty and inequality in rural Bihar and has examined the distribution of consumption along with distribution of land among the agricultural labourers for the period 1960-61 through 1970-71. The study made use of various rounds of N.S.S. consumption expenditure data (17\(^{\text{th}}, 18\(^{\text{th}}, 19\(^{\text{th}}, \text{and } 25\(^{\text{th}}\) and the poverty line was Rs. 15.83 per capita per month in 1960-61. The figure was updated for the subsequent years as Rs.19.00, Rs.23.59 and Rs.32.61 for 1963-64, 1964-65 and 1970-71 respectively.

The findings of the study shows that 41 per cent (17.5 million people) of the population are below the poverty line in 1960-61. In 1963-64 this percentage was 54 and in 1964-65 it declined to 52.5 and again it rose to 59 per cent in 1970-71. Thus, the study noticed (with in a period of one decade) an increase in the number of poor by 12.3 million. Further, the study also observed inequalities in the distribution of land ownership and land operated in Bihar, despite the attempts made for land reforms. The author concluded that the benefits from increased output (arising from various governmental schemes) have gone largely to the
bigger peasant farmers and to large land owners who have access to credit and material inputs and consequently, inequalities in the distribution of rural income widened.

Another study by Singh estimated the magnitude of rural poverty and the trends in inequalities on the basis of N.S.S. data on consumption expenditure in Uttar Pradesh, for the period 1957-58 to 1977-78. The study observed an increase in the value of consumer expenditure and this increase was relatively sharper in non-food items than in the expenditure on food items. The consumption pattern revealed that nearly 70 per cent of it was accounted by food items thereby left very little margin to meet other basic needs. Consumption expenditure inequality was found very sharp. More than half of the population were below the poverty line and nearly one quarter were below the line of severe destitution.

The fluctuations in agricultural output was seen having an impact on the poverty level, although the trickle-down effect of agricultural growth was found weak. The study underlined the need for a simultaneous effort of raising agricultural output and redistribution policies to reduce rural poverty.

Maitra's study of rural poverty in West Bengal (for the year 1976) was on the basis of a Sample Survey of households and the poverty line used was an average per capita calorie of 2,250. The study revealed that 55 per cent of the rural population are below the poverty line. Although, more
than 60 per cent of the scheduled castes and scheduled tribes belonged to the poor, a considerable number of people from other groups were also found poor. Occupation-wise about 60 per cent of the village artisans and others engaged in agricultural work were poor.

The study noticed a considerable inequality in the accessibility to publicly provided/subsidised commodities/services like ration rice, education and health. Although, the proportion of population receiving ration rice did not vary across income groups, the top 10 per cent received 16 per cent of the ration, the bottom 15 per cent received only 6.6 per cent. The amount of help received by the households in cash or in kind, which was designed to enable the weaker sections to stand on their own, revealed that the quantum was too meagre for the actual requirement. These materials were found to be received by even the richer sections too.

SECTION III

The study by Parthasarathy et al24 examined the character of poverty among the rural poor in the West Godavari district of Andhra Pradesh drawing data from a sample study of "Employment and Unemployment of Rural Labour" conducted in West Godavari district for the period 1971-72. They considered two poverty lines (i) at the level of Rs.450 per capita and (ii) at the level of Rs.300 per capita. In order to examine the association between levels of poverty and other
characteristics, they have constructed a two way contingency tables. The variables chosen were. (1) possession of land (1i) average wage rate (11i) worker dependent ratio (1v) size of the family (v) presence or absence of female worker (v1) average level of employment (v11) regional variations and (v11i) caste. The association was examined for landless and landed labourers. Chi-square test was adopted to examine the association between poverty and the variables mentioned earlier. The results of Chi-square test reveals that possession of land alone was found to have significant association on poverty. The same exercise for landless households showed that the size of the family has a significant impact on poverty.

They used the multiple regression technique to measure the influence of variables such as annual wage income, number of days employed during the year, number of workers, number of members in the family, workers as per cent of members in the household and size of land holding on per capita income. The study observed an increase in the per capita income by 0.65 as a result of an increase in employment per worker per day. An increase in the wage rate by a rupee is associated with an increase in per capita income by Rs.121.15. Thus, the authors underlined the need for employment oriented technology for ameliorating rural poverty.

Mitra examined the relationship between (1) land-ownership and poverty and (1i) size of the household and
poverty in the rural area of three districts of Andhra Pradesh (Anantapur, Medak and West Godavari) during the year 1977-78. The study was on the basis of the Employment-Unemployment Schedule of the N.S.S. (state sample) data. The dependent variables considered were monthly per capita expenditures of cultivator and agricultural labour households. The explanatory variables were. (i) the size of the household, (ii) per capita un-irrigated land, (iii) per capita irrigated land, (iv) proportion of economically active persons and (iv) proportion of economically active males.

The pattern of relationships between family size and the levels of living (per capita monthly expenditure) was observed to be irregular. For cultivator households higher household size have not reduced the per capita expenditure. But the per capita expenditure of agricultural labour households was seen to be reduced by higher size of the family. Land was observed to be an important variable determining the per capita expenditure for the cultivator households. Owning and operating some land was observed to have helped in improving the per capita expenditure of the agricultural labour households. A substantial percentage of variations remained unexplained by the variables chosen for the study.

In another study Reddy and Mitra examined the nature of poverty and factors influencing poverty in the rural areas of Medak in Andhra Pradesh. The study relied on the ungrouped N.S.S. data of 32nd round (1977-78 state sample).
The poverty line was arrived on the basis of an optimum food basket by minimising the food cost subject to the fulfillment of nutritional norms. In their poverty line a certain imputed expenditure on non-food articles were added on the basis of the observed behaviour. They have considered a calorie requirement of 2,250 and 1,900 per capita per day. The calorie-intake of each household was derived from the information on quantities consumed by various food items and their calorie-content. Next the per capita calorie-intake was regressed on per capita consumer expenditure using the log-log inverse form of the Engel Function

\[
\text{Log } C_i = a + b \text{ Log } E_i + c \left( \frac{1}{E_i} \right) + e_i
\]

Where

\( C_i \) = Per capita Calorie-intake of the \( i^{th} \) household.

\( E_i \) = Per capita total monthly consumer expenditure of the \( i^{th} \) household

\( e_i \) = Error term.

Further, the poverty lines Corresponding to calorie norms (2,250 and 1,900 calories) were derived by inverse interpolation.

The study revealed that 83 and 51 per cent of the people are below the poverty line on the basis of 2,250 and 1,900 calories respectively. Among occupation groups, poverty level varied from 90 per cent for marginal farmers to 86 per cent for the landless (agricultural landless labour and the self-employed). The study observed a positive association between poverty level and average size of the household while
the association was negative between poverty and the extent of irrigation. The authors suggested irrigation as an important policy instrument for the reduction of poverty and landless; marginal and small farmers to be identified as target groups for any programme of poverty eradication.

Subramanyam\(^{27}\) has identified the inter-relationships between poverty and unemployment and labour force participation rates in the East Godavari district of Andhra Pradesh (covering rural and urban segments) on the basis of the 32\(^{nd}\) round (1977-78) of N.S.S. (state sample) data. The poverty line was by estimating the expenditure-calorie intake relationship and deriving the expenditure corresponding to the minimum calorie requirement. The calorie-expenditure relationship was given by \( C = f(x) \), where 'c' is the calorie-intake and 'x' is the per capita total expenditure. The poverty line \((x^*)\) was derived from the above relationship by inverse interpolation. The poverty lines were estimated at 3 calorie levels, 1,800, 2,000 and 2,250. In addition, Head Count ratio and Sen's index were also used to measure the incidence of poverty.

The study revealed that the incidence of poverty was not much different between rural and urban areas. However, it was higher among the scheduled castes (57.2 and 75.6 per cent in rural and urban areas respectively) than other caste people (43.2 and 47.4 per cent in rural and urban areas respectively). Classification of households by occupation
groups revealed a positive association between poverty and unemployment. The incidence of poverty and unemployment being found highest among labour households with a high participation rate, the study suggested a policy of employment generation to mitigate their poverty.

Gaur estimated the extent of poverty and identified the causes of poverty (both rural and urban) in the Baratpur district of Rajasthan (in the year 1980) by using both primary and secondary data. Poverty was measured (i) on the basis of the minimum needs approach and (ii) calorie requirement approach. According to the minimum needs approach, it was estimated that a monthly per capita expenditure of Rs.99 and Rs.104.10 were necessary at the 1980-81 prices for rural and urban areas respectively. On the basis of calorie requirement approach it was found that a minimum of 2,845.48 and 2,506.48 calories necessary for rural and urban areas respectively.

The study found that 21.17 and 11.13 per cent households are below the poverty line on the basis of the minimum needs approach and calorie requirement approach respectively. Out of this 21.17 per cent poor households, 22.19 per cent were rural households and 16 per cent were urban households. Out of the 11.13 per cent poor households, the percentage of rural households was 12.53 and the percentage of urban households was only 4 per cent.
The study revealed that per capita consumption expenditure is an important factor influencing the level of per capita actual diet, per capita difference between actual diet and balanced diet, per capita calorie content, per capita difference between calorie content and calorie requirement of a household. The major contributory factors for the existence of poverty were: lack of irrigation facilities, size of the family, more dependence on the heads of households, absence of other sources of economic activities, joint-family system, unemployment, illiteracy and the system of landless agricultural labourers.

Per capita monthly expenditure on medical care, education, and social customs tested in relation to per capita consumption expenditure showed significant relationship. The study revealed that the various governmental programmes for the eradication of poverty failed to achieve anything significantly in attaining its goals.

The study by Thakur\textsuperscript{29} estimated the extent of rural poverty among the households belonging to Marginal Holdings, Small and Medium size in Himachal Pradesh (in the year 1980-81) on the basis of primary data. Two poverty lines were considered. They are - (1) on the basis of 'nutrition norms' (who consume less than 2,400 calories per day spent less than Rs.52.93 per month on food items), (11) on the basis of nutrition plus approach (those persons who spent less than Rs.77.61 per month on both food and non-food items).
On the basis of nutritional norm approach, the percentage of poor on the marginal size of holdings was found 71.06, on the small size of holdings 50.65 and on the medium size of holdings 26.34 per cent. The overall percentage of the poor among all households was 47.14. On the basis of nutrition plus approach the percentage of poor among all the households worked out to 57.31. Here too, the percentage of poor was the highest among marginal farmers.

Sarma's study examined the 'generational' and 'temporal' dimension of poverty among agricultural labour households in the Krishna district of Andhra Pradesh (during 1981-1982) on the basis of primary data. Two poverty lines were considered. They are: (i) An annual per capita consumption expenditure of Rs.236 at 1961-62 prices and (ii) households who own assets less than Rs.5,000.

The study revealed that 41 per cent of the households were below the income poverty line, whereas it was 26 per cent in the case of landed and 47 in the case of landless households. On the basis of asset poverty, 73 per cent are below the poverty line. The relatively low incidence of poverty on the basis of income poverty is due to the high level of development attained by the district and also due to the rise in the real wages and money wages of agricultural labour. No significant association was observed between caste and poverty. However, poverty was identified with specific occupational groups. Higher family size and dependency ratio were found to be independent factors explaining poverty. In
addition, significant association between poverty and absence of female workers was also observed. However, there was not any association between poverty and the level of employment. A generational decline in occupational status and access to land were observed and this was found to have aggravated the problem of poverty. Further, inter-generational occupational change was seen more in the case of other castes than scheduled castes. The decline in the access to land among the sample households was due to the adverse effect of tenancy reforms.

The regression equation estimated with per capita income as the dependent variable revealed that family size, labour force participation rate, level of employment per worker, average daily wage rate per worker and occupational holding put together have shown a high explanatory power in explaining inter-household variations in per capita income. The author suggested public intervention in favour of the poor to make a big difference in the levels of living of the poor.

Centre of Regional Studies, Utkal University, measured the extent of rural poverty in the two villages (Basantapur Sasam and Kaushalyapur) of the district of Puri in Orissa in 1982 on the basis of primary data. Poverty was measured in terms of per capita income, per capita consumption expenditure and per capita calorie-intake.

On the basis of calorie-intake, the study found about 52 and 44 per cent households below the poverty line in
Kaushalyapur and Basantapur villages respectively. A comparison of the incidence of poverty by calorie-intake and per capita monthly expenditure showed higher incidence of poverty when monthly per capita expenditure criterion was used. This was on account of the fact that in rural areas all consumption articles did not involve expenditure.

The major cause of poverty was the non-availability of agricultural land to majority of the households. In addition, illiteracy, high dependency ratio, non-diversification of occupation from traditional to modern were the other factors responsible for the poverty of the region.

The study by Thakurtha estimated the extent of poverty in the Calcutta city (for the period 1950-72) on the basis of the family budget enquiries undertaken by the Bureau of Applied Economics and Statistics, West Bengal. The poverty line was 2,100 calorie and it was estimated that on an average a monthly per capita income of Rs.25.89 was necessary for this much calorie in 1950-51. A per capita income of Rs.24.02, Rs.28.99, Rs.41.54 and Rs.52.57 were necessary in 1955-56, 1960-61, 1966-67 and 1971-72 respectively for generating the above mentioned calorie.

The study unfolded that about 42 per cent of the people were below the poverty line in 1950-51. For the years 1955-56, 1960-61, 1966-67 and 1971-72 these percentages were 42, 44, 38 and 35 respectively. For the period under study some improvement was noticed in the economic condition of the
comparatively better-off sections of the individuals living below the poverty line. Such a commensurate improvement was not seen in the lot of those living further below the poverty line. Thus, the author concluded that the rate of economic growth of the less poor in the city has been higher than that of the more poor.

Radhakrishna et al. have studied the impact of liquor consumption on poverty in Ahmedabad slums for the period 1973 on the basis of primary data. The study attempted to answer the following questions, (i) What is the effect of liquor consumption on poverty? and (ii) can it make a dent on poverty if the expenditure on liquor is diverted to essential items of consumption?

The study found consumption of liquor not predominantly at the cost of essential items. There was not any evidence of adverse effects of liquor consumption on the level of living. The study noticed that even if the addicts stop drinking and spend the amount on consumer items, it could not make any significant improvement on total poverty. The poverty was seen to be so deep that hardly any difference can be made to it by the diversification of the amount spent on liquor. The study highlighted the fact that the root causes of poverty lie deep in the abject conditions in which these vulnerable sections live and not in their budget allocations. It is the level of their earnings and not so much their allocation, that lies at the root of rampant poverty.
Mittal's study measured the extent of poverty and the structure of income and its distribution in the informal and formal sectors in Pattiala City (in 1982) on the basis of primary data. The author revealed that the average income of the workers in the informal sector substantially lower than that of those in the formal sector. A higher proportion of households were found lying below the poverty line in the informal sector. This was due to the low wage which was lower than the legal minimum wage. In addition, the intensity of poverty was found higher among migrant households. Further, the study also noticed a greater intensity of poverty among the nuclear family than that of a joint family.

SECTION IV

The above review of important studies on Indian Poverty gives the following conclusions.

1) These studies have made use of one or the other of the variants of the national poverty line, by conveniently ignoring the wide inter-regional differences which are conspicuous in a large country like India. Owing to the differences in the food availabilities and food habits in different areas and different communities, the diets have to be valued differently by using different sets of local retail prices. No one dietary pattern valued at one set of national price average can be made use of for counting the persons who cannot afford this dietary pattern. Thus, poverty analysis
has to be on the basis of local prices from where the poor purchases consumption items.

2) The majority of these studies are macro level studies and hence, the findings of these studies cannot give a true picture about micro-regions owing to the wide regional differences. Further, most of these exercises are about the rural poverty alone and have neglected urban poverty.

3) Almost all these studies are on the basis of secondary data, especially supplied by National Sample Survey Organisation and other official documents. The drawback of these data are already well documented. Hence, these studies of necessity are to be tailored according to the data availability. Therefore, the researchers had to accept the rigid framework of the data and could not broaden the spectrum of the quest for reality. These advantages can only be attained and gainfully made use of in micro-level studies based on primary data. 36

4) With a few exceptions, all the studies examined and measured the extent and incidence of poverty only. These scholars (Ahuwalia, Salih, Mundle, Gaiha, Sastry and Vaidyanathan) have examined the trends in poverty and its relationship with some macro variables, especially on agricultural output. 37 However, these studies were confined to limited variables and rural areas alone. Further, even if, all the variables associated with poverty at the macro
levels are identified, it cannot help to solve the problem of poverty from the regions owing to the regional differences (in culture, climate, food habits, activity status, cropping pattern, infrastructural facilities, resource endowments, and the level of development attained etc.) from one region to another since these variables are vital in the region's poverty level.

5) From a policy point of view, what matters more than a mere understanding of the incidence of poverty is the identification of the determinants of poverty at regional levels. There are few studies on determinants of poverty. However, Reddy and Mitra, Subramanyan, Mitra, Parthasarathy et al. and Sarma attempted to identify the factors associated with poverty at a regional level. Reddy and Mitra have examined the relationship of average size of the household and irrigation on poverty. Subramanyan has examined the inter-relationship between poverty, unemployment and labor force participation. Mitra examined the relationship between land ownership and household size on poverty. The study by Farthasarathy et al. have taken into account per capita income, annual wage income/number of days employed during the year, the number of workers, number of members in the family, workers as percentage of members in the household and size of land holding. Sarma in his study included some more variables like male workers, female workers, productive assets, per capita floor space, yard facilities and dependency ratio. Even these studies were
limited to rural areas and even that among agricultural labourers (Sarma) alone. Further, these studies excluded many important variables which will have an influence on poverty. The influence of education, health, fuel, cloth, public distribution, liquor consumption, home-grown consumption, meals outside home and caste remain excluded.

Hence, in a dynamic world where everything is undergoing fermentation, even if all the factors on poverty are identified, there is the possibility of it getting out of date with the passage of time. The factors on poverty also differ across the regions and hence what is important in poverty in one area or region may not be important in another area or region. Hence, there is a need for identifying the factors associated with poverty at the regional level by incorporating all the variables which will have an influence on poverty. More explicitly, the major determinants of poverty must be identified if a realistic solution to the problem is to be suggested. This exercise should cover rural as well as urban areas as there would exist wide variations between the urban and the rural characteristics of poverty. Further, owing to regional differences, there is the need to explore the regional differences in the determinants of poverty. So far as studies on Indian poverty are concerned no attempt has been made to study the influence of multiple-factors on poverty at a regional level and the present study is directed towards this goal.
NOTES AND REFERENCES

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37. See Chapter III of this Thesis.


42. Parthasarathy et al., op.cit., pp.30-47.

43. Sarma, Peerraju, P., op.cit.